



IMPLEMENTING THE NATIONAL HIV/AIDS STRATEGY (NHAS) IN MICHIGAN Annual Indicator Report, January 2014



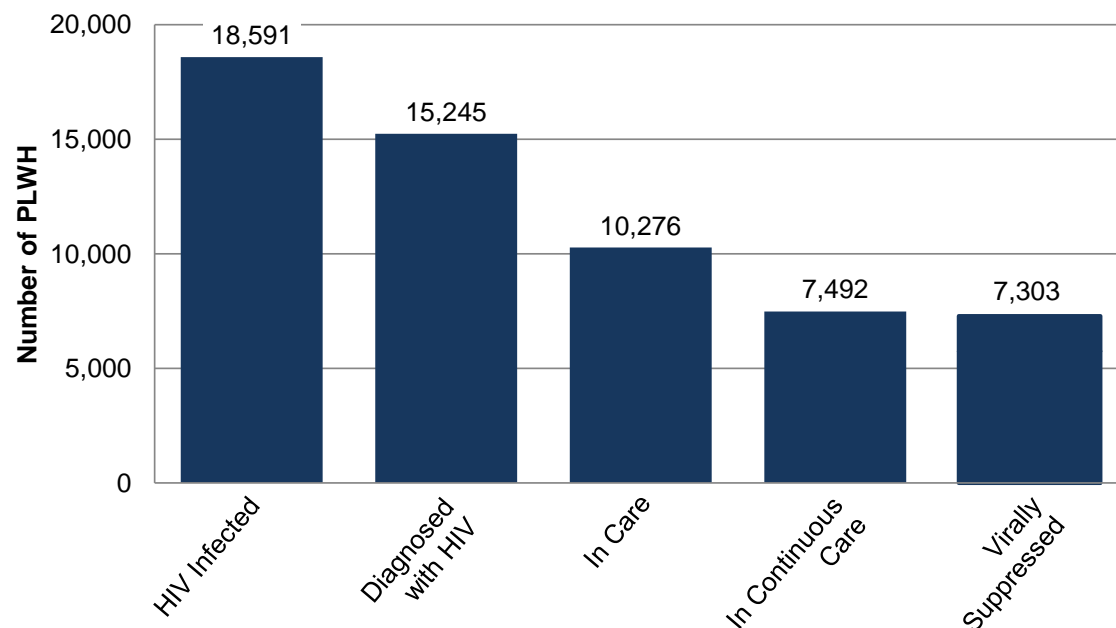
Background:

The National HIV/AIDS Strategy (NHAS) Federal Implementation Plan lays out nine strategy objectives for 2015.¹ The objectives are measurable indicators of the strategy's three main goals:

- 1) Reduce new HIV infections
- 2) Increase access to care and improve health outcomes for people living with HIV (PLWH)
- 3) Reduce HIV-related health disparities

Michigan HIV Treatment Cascade, 2012²

The HIV Treatment Cascade was developed by the CDC to assess gaps in care. It is presented here in order to provide context to many of the NHAS goals.



HIV Infected: Persons aware and unaware of their infection.

Diagnosed with HIV: Persons diagnosed with HIV. Unless otherwise noted, "PLWH" refers to diagnosed persons living with HIV.

In Care: PLWH with at least 1 CD4 or viral load (vl) lab test.

In Continuous Care: PLWH who received at least two CD4 and/or viral load (vl) lab tests within one year at least three months apart.

Virally Suppressed: PLWH with less than or equal to 200 copies of HIV virus per milliliter of blood (≤ 200 copies/mL).

Methods:

This analysis applies the NHAS targets to Michigan HIV surveillance data. To calculate the 2006 baseline measurements as well as to determine realistic 2015 goals,³ the NHAS used national HIV surveillance data from 2010. Like the NHAS, the 2006 baseline figures were calculated using Michigan 2010 HIV surveillance data in order to account for the majority of reporting delay. Annual figures are updated each year until three years pass. After three years, the figure is "frozen" and is not recalculated.

Indicators are calculated using data from Michigan's enhanced HIV/AIDS Reporting System (eHARS) unless otherwise specified.

¹ National HIV/AIDS Strategy Federal Implementation Plan, July 2010

² For a detailed look at the Michigan HIV Treatment Cascade, see the Michigan HIV Treatment Cascade. http://www.michigan.gov/mdch/0,4612,7-132-2944_5320_5331---,00.html

³ Strategic Plan, Division of HIV/AIDS Prevention 2001 through 2015, CDC Division of HIV/AIDS Prevention

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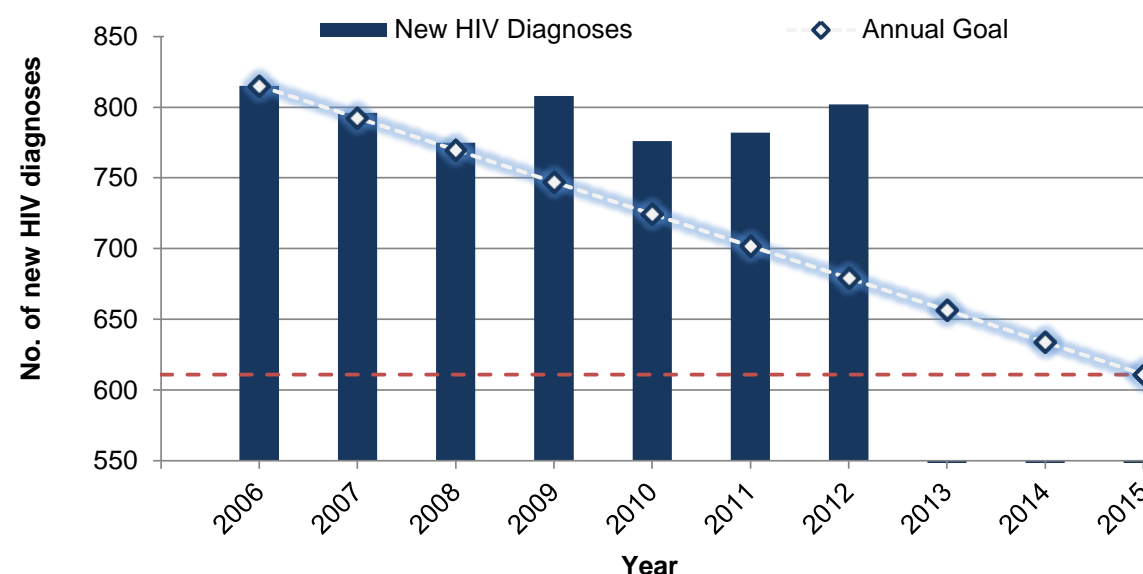
Goal 1: Reducing New HIV Infections

Objective 1: By 2015, reduce the annual number of new HIV infections by 25%

To reach this goal, Michigan needs to reduce the annual number of new HIV infections from 815 (in 2006) to 611 (a reduction of approximately 23 new HIV diagnoses per year). It is important to note that this objective does not account for HIV prevalence (higher prevalence rates increase the probability of new infections). Also, new case counts should not be used to compare the reduction of new infections across areas or demographic groups. Both of these issues are addressed by calculating the transmission rate (objective 2).

Michigan did not meet the annual goal between 2009 and 2012. The growing prevalence rate (due to the decrease in HIV related deaths) may be a contributing factor. Statistically, the number and rate of new HIV diagnoses in Michigan remained unchanged between 2007 and 2011¹.

Figure 1. Number of new HIV diagnoses by year for persons ≥13 years of age and living in Michigan at diagnosis

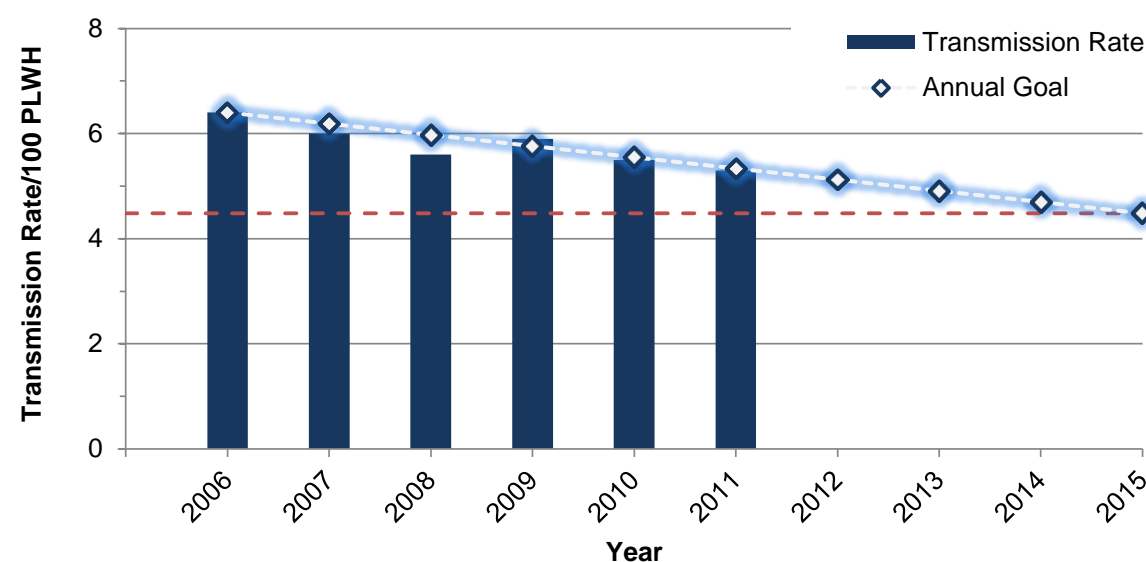


Objective 2: By 2015, reduce the HIV Transmission Rate (HTR) by 30%

The HTR calculation is a measure of the annual new diagnoses in relation to the number of PLWH ($HTR\ of\ yr.\ X = [new\ diagnoses\ in\ yr.\ X / prevalence\ in\ yr.\ X] * 100$). It indicates the probability that a group of PLWH will transmit the virus to others. Because the HTR is a rate, progress in the reduction and prevention of HIV can be compared among dissimilar populations (geographic areas, demographic groups, etc.). To reach the NHAS goal, Michigan needs to reduce the annual HTR from 6.4 new diagnoses per 100 PLWH (in 2006) to 4.7 new diagnoses per 100 PLWH.

Michigan is on track to reach this goal by 2015. The number of new HIV diagnoses is decreasing in relation to HIV prevalence. As this objective accounts for prevalence (unlike objective 1) Michigan may meet objective 2 and not objective 1.

Figure 2. HIV Transmission Rate among PLWH ≥13 years of age and living in Michigan on January 1 of each given year

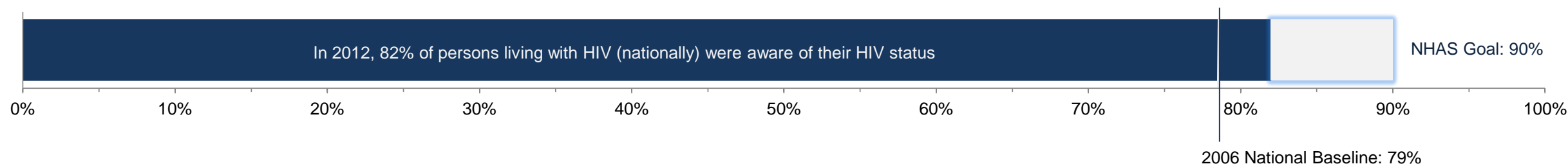


Objective 3: By 2015, increase the proportion of PLWH who know their HIV status to 90%

MDCH is currently developing a method to estimate the proportion of HIV-infected persons aware of their HIV status. Until a Michigan-specific estimate is calculated, the national estimated proportion of HIV-infected persons who know their status (82%) will be presented.

Because this estimate is not Michigan-specific we cannot assess, at this time, if Michigan is on track to reach this objective by 2015.

Figure 3. Proportion of HIV-infected persons living in Michigan who know their HIV status



¹2013 Annual Review of HIV Trends in Michigan (2007-2011)

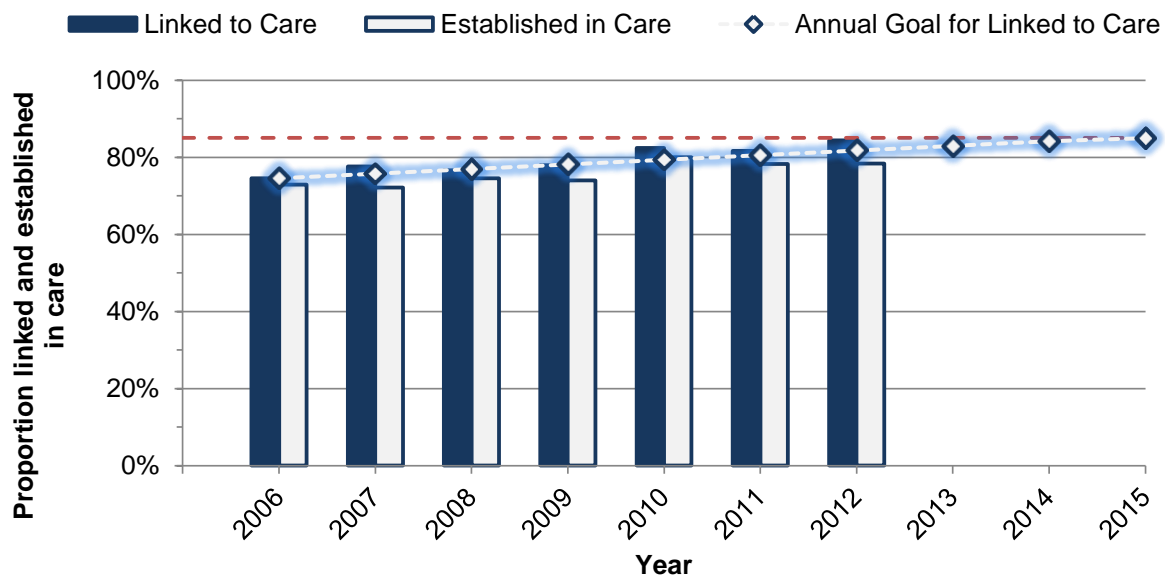
Goal 2: Increasing Access to Care and Improving Health Outcomes for People Living with HIV

Objective 4: By 2015, increase the proportion of newly diagnosed persons linked to clinical care within 3 months to 85%

CD4 and/or viral load (vl) lab tests are proxies for clinical care visits. The first CD4 and/or vl lab test on or after the date of diagnosis is used to calculate the time between HIV diagnosis and linkage to care. The proportion 'established in care' (persons receiving at least two CD4 and/or vl tests within 12 months of diagnosis) is also displayed. *Note: the NHAS goal applies only to the 'linked to care' measure.*

Michigan is on track to reach this goal by 2015. It is important to note that the improved linkage within 3 months is due to a reduction of longer linkage periods (>3 months). The proportion of those never linked remains unchanged.

Figure 4. Proportion of new HIV diagnoses linked to clinical care within 3 months by year of diagnosis for persons ≥13 years of age and living in Michigan at diagnosis



Linked to Care: At least 1 CD4 or vl test within 3 months of diagnosis (includes tests run on diagnosis date).

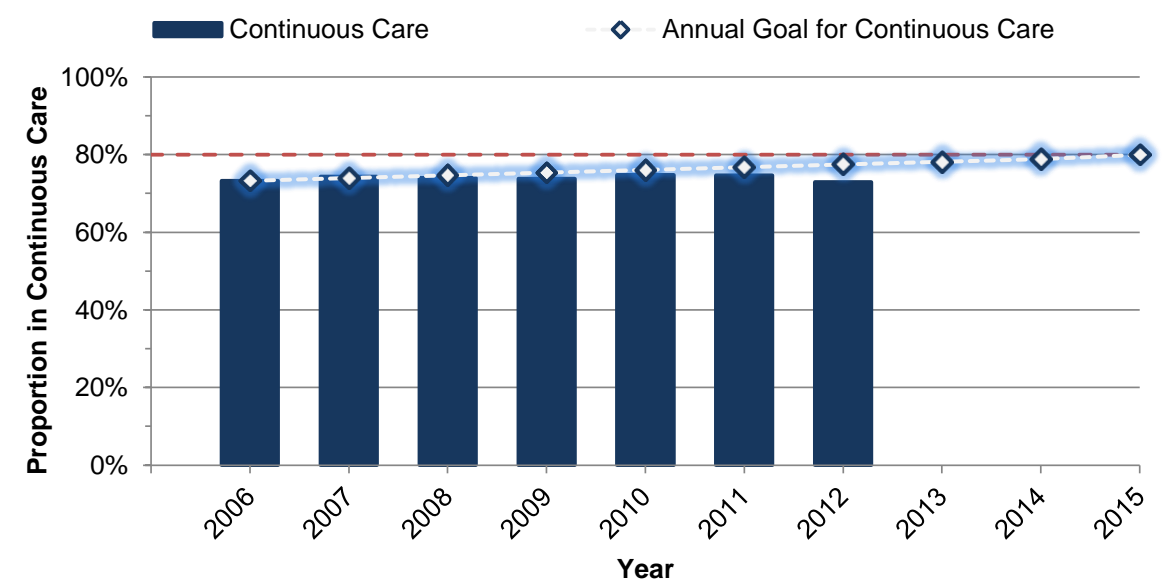
Established in Care: At least 2 CD4 or vl tests within 12 months of diagnosis (includes tests run on diagnosis date).

Objective 5: By 2015, of PLWH in care, increase the proportion who are in continuous care to 80%

Persons who received at least two CD4 and/or viral load (vl) lab tests within one calendar year at least three months apart are in 'continuous care' that year. The percent of persons in continuous care is a proportion of PLWH in care (not all PLWH). For example, In 2012 10,276 (67% of PLWH) were in care. Of these 10,276 persons, 7,492 (73%) were in continuous care.

The slight decline in 2012 is due to the growth of PLWH in care while the proportion in continuous care has remained at 49% since 2010. Engaging in care is an essential step to continuous care, therefore Michigan expects to meet this objective by 2015.

Figure 5. Proportion of PLWH in continuous care of those in care, were ≥13 years of age and living in Michigan on January 1 of each given year



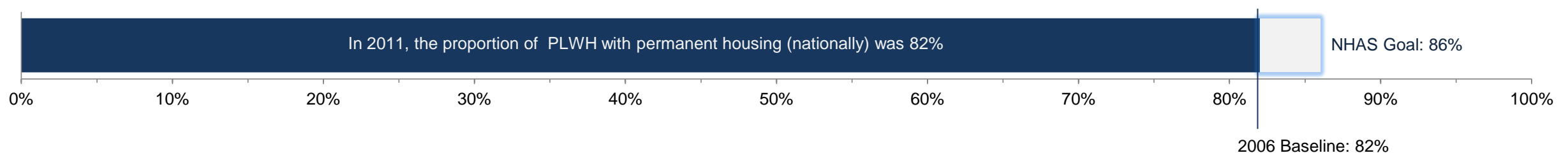
Continuous Care: At least 2 CD4 or viral load tests at least 3 months apart reported in the given year.

Objective 6: By 2015, increase the proportion of PLWH with permanent housing to 86%.

Changes in data reporting requirements for Housing Opportunities for Persons with AIDS (HOPWA) grantees beginning June 2013 will allow MDCH to better estimate the proportion of PLWH in Michigan with permanent housing. Until that time, the national proportion of PLWH with permanent housing (82%) will be presented.

Because this estimate is not Michigan-specific we cannot assess, at this time, if Michigan is on track to reach this objective by 2015.

Figure 6. Proportion of people living with HIV in Michigan with permanent housing



Goal 3: Reducing HIV-Related Health Disparities

Objectives 7-9: By 2015, increase the proportion of virally suppressed black persons, Latino persons, and men who have sex with men (MSM) living with HIV by 20%

Virally suppressed PLWH are persons with less than or equal to 200 copies of HIV virus per milliliter of blood (≤ 200 copies/mL). Viral suppression in an individual is an indication of his/her access to care and adherence to treatment, and it results in reduced transmission risk.

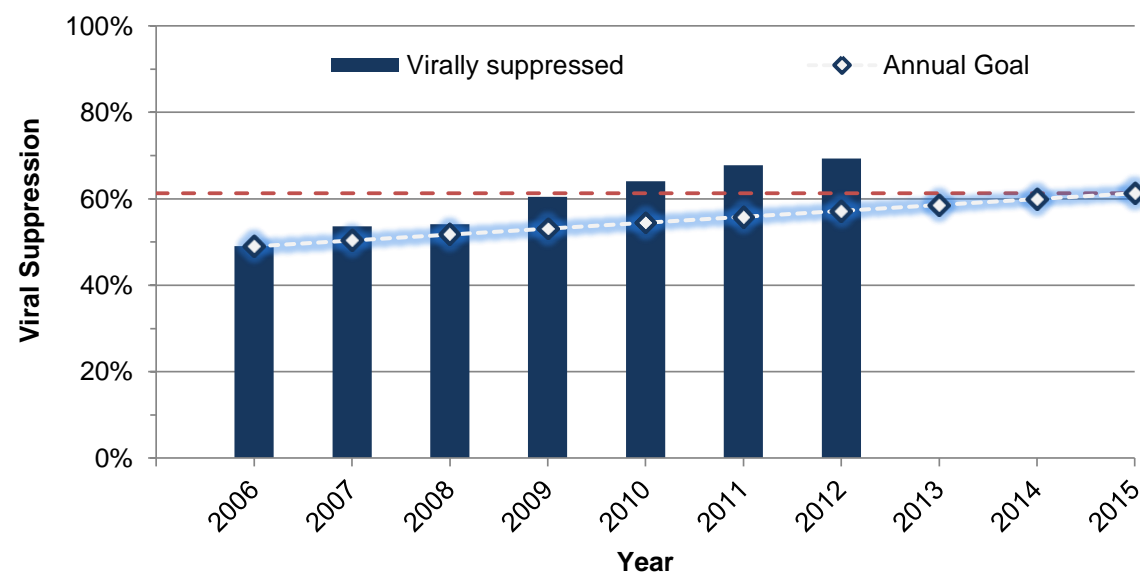
The percent of virally suppressed PLWH in an HIV positive population is a proportion of the PLWH who received at least one viral load lab test in the given year (not all PLWH). Knowing the proportion who received a viral load is critical context when interpreting viral suppression. For example, while Latino persons boasted an 83% viral suppression rate, only 51% received a viral load test in 2012.

This NHAS goal specifically pertains to increasing viral suppression in populations disproportionately affected by HIV (HIV-diagnosed black persons, Latino persons, and MSM). To reach this goal, Michigan needs to increase the proportion of virally suppressed

- black persons from 49% to 61% (Figure 7)
- Latino persons from 57% to 71% (Figure 8)
- men who have sex with men (MSM) from 54% to 67% (Figure 9).

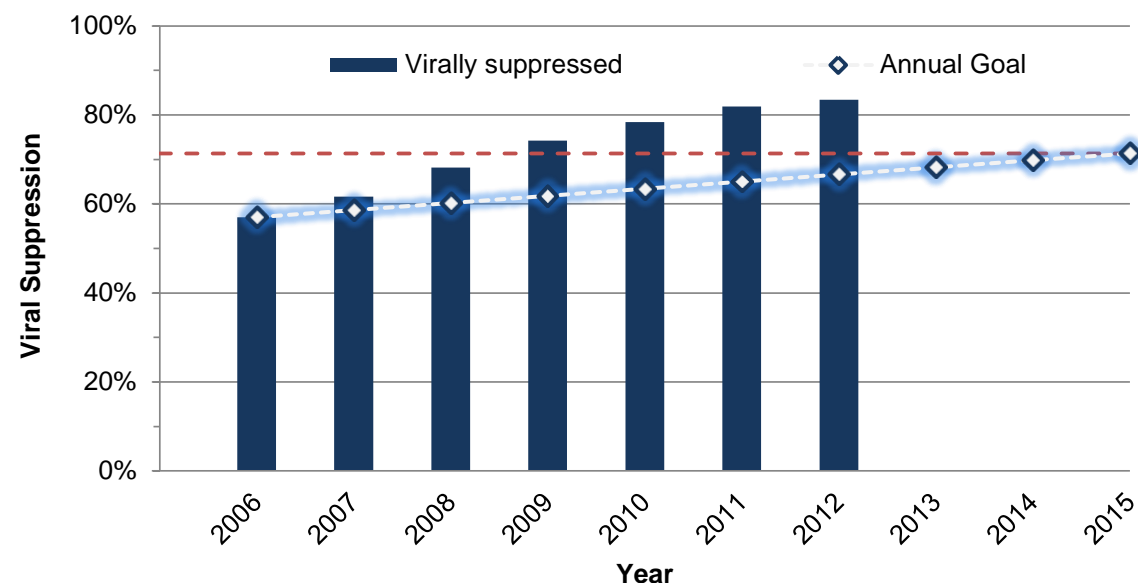
Michigan surpassed the NHAS 2015 goal to increase the proportion of virally suppressed Latino persons and MSM in 2009 and black persons in 2010. Michigan expects to continue increasing viral suppression in all PLWH. These figures are a good indication that once persons are in care, the likelihood of viral suppression is high.

Figure 7. Viral Suppression in black persons who received a viral load test, were ≥ 13 years of age and living in Michigan on January 1 of each given year



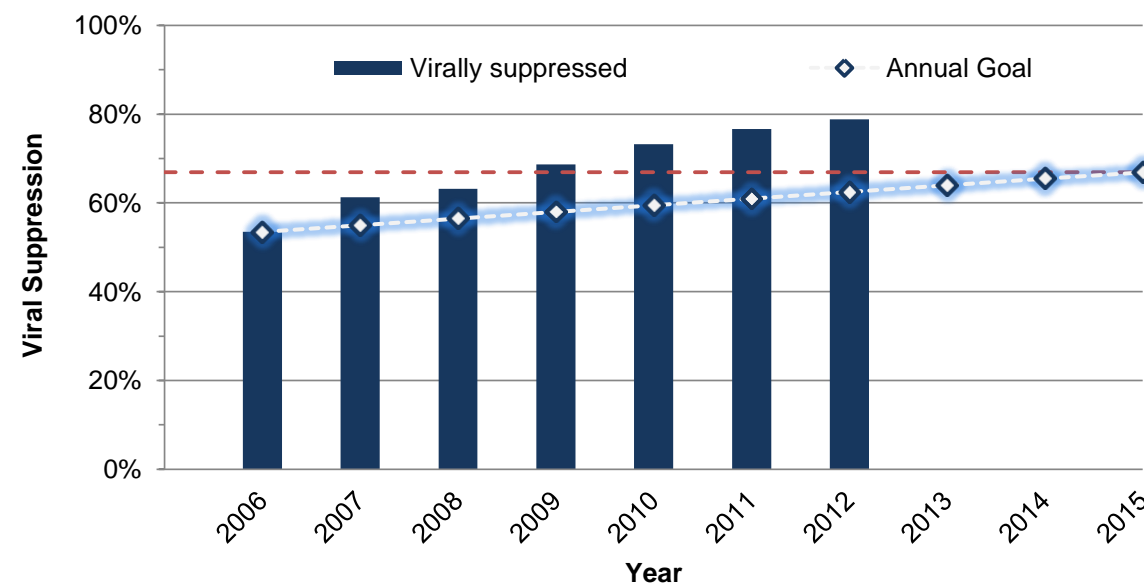
In 2012, of the 15,245 PLWH in Michigan, 8,367 (55%) were black. Of these, 5,247 (63%) received a viral load test, and 3,638 of the 5,247 (69%) were virally suppressed.

Figure 8. Viral Suppression in Latino persons who received a viral load test, were ≥ 13 years of age and living in Michigan on January 1 of each given year



In 2012, of the 15,245 PLWH in Michigan, 774 (5%) were Latino. Of these, 398 (51%) received a viral load test and 332 of the 398 (83%) were virally suppressed.

Figure 9. Viral Suppression in MSM who received a viral load test, were ≥ 13 years of age and living in Michigan on January 1 of each given year



In 2012, of the 15,245 PLWH in Michigan, 8,538 (56%) were MSM. Of these, 5,450 (64%) received a viral load test and 4,296 of the 5,450 (79%) were virally suppressed.